

EXHIBIT 17

ANSI/IEEE Std 100-1988

***IEEE Standard Dictionary of
Electrical and Electronics Terms***

An American National Standard
Acknowledged as An American National Standard
July 8, 1988

**IEEE
Standard Dictionary
of
Electrical and
Electronics
Terms**

Fourth Edition

Library of Congress Catalog Number 88-082198

ISBN: 1-55937-000-9

© Copyright 1988

The Institute of Electrical and Electronics Engineers, Inc

*No part of this publication may be reproduced in any form,
in an electronic retrieval system or otherwise,
without the prior written permission of the publisher.*

November 3, 1988

SH12070

A87

TQD_TX00045344

How to Use This Dictionary

The terms defined in this dictionary are listed in alphabetical order. Terms made up of more than two words appear in the order most familiar to the people who use them. In some cases cross-references are given.

Some terms take on different meanings in different fields. When this happens the different definitions are numbered, identified as to area of origin, coded, and listed under the main entry.

If a reader wants to know the source of a definition he need only look up the code number following the definition in the SOURCES section that appears at the back of the book between pages 1112 and 1129.

transadmittance, forward

1028

transfer

transadmittance, forward (electron tubes). The complex quotient of (1) the fundamental component of the short-circuit current induced in the second of any two gaps and (2) the fundamental component of the voltage across the first. 125

trans- μ -factor (multibeam electron tubes). The ratio of (1) the magnitude of an infinitesimal change in the voltage at the control grid of any one beam to (2) the magnitude of an infinitesimal change in the voltage at the control grid of a second beam. The current in the second beam and the voltage of all other electrodes are maintained constant. 125

transceiver (1)(data transmission). The combination of radio transmitting and receiving equipment in a common housing, usually for portable or mobile use, and employing common circuit components for both transmitting and receiving. 59

(2)(navigation aid terms). A combination transmitter and receiver in a single housing, with some components being used by both parts. *See: transponder.* 526

transconductance. The real part of the transadmittance. *Note:* Transconductance is, as most commonly used, the interelectrode transconductance between the control grid and the plate. At low frequencies, transconductance is the slope of the control-grid-to-plate transfer characteristic. *See: electron-tube admittances; interelectrode transconductance.* 125

transconductance meter (mutual-conductance meter). An instrument for indicating the transconductance of a grid-controlled electron tube. *See: instrument.* 328

transcribe (electronic computation). To convert data recorded in a given medium to the medium used by a digital computing machine, or vice versa. 235

transcriber (electronic computation). Equipment associated with a computing machine for the purpose of transferring input (or output) data from a record of information in a given language to the medium and the language used by a digital computing machine (or from a computing machine to a record of information). 210

transducer (1)(electrical heating applications to melting furnaces and forehearth in the glass industry). A device that is actuated by power from one system and supplies power in any other form to a second system. 520

(2) (communication and power transmission). A device by means of which energy can flow from one or more transmission systems or media to one or more other transmission systems or media. *Note:* The energy transmitted by these systems or media may be of any form (for example, it may be electric, mechanical, or acoustical), and it may be of the same form or different forms in the various input and output systems or media. 111,255,54

(3) (metering). A device to receive energy from one system and supply energy, of either the same or of a different kind, to another system, in such a manner that the desired characteristics of the energy input appear at the output. 212

(4) (thyristor). A device which under the influence of a change in energy level of one form or in one system, produces a specified change in energy level of another form or in another system. 445

transducer, active. A transducer whose output waves are dependent upon sources of power, apart from that supplied by any of the actuating waves, which power is controlled by one or more of the waves. *Note:* The definition of active transducer is a restriction of the more general **active network**: that is, one in which there is an impressed driving force. *See: transducer.* 210

transducer gain (1) (general). The ratio of the power that the transducer delivers to the specified load under specified operating conditions to the available power of the specified source. *Notes:* (A) If the input and/or output power consist of more than one component, such as multifrequency signals or noise, then the particular components used and their weighting must be specified. (B) This gain is usually expressed in decibels. *See: transducer.* 210

(2) (two-port linear transducer). At a specified frequency, the ratio of (A) the actual signal power transferred from the output port of the transducer to its load, to (B) the available signal power from the source driving the transducer. 125

transducer, ideal (for connecting a specified source to a specified load). A hypothetical passive transducer that transfers the maximum available power from the source to the load. *Note:* In linear transducers having only one input and one output, and for which the impedance concept applies, this is equivalent to a transducer that (1) dissipates no energy and (2) when connected to the specified source and load presents to each its conjugate impedance. *See: transducer.* 210

transducer, line. *See: line transducer.*

transducer loss. The ratio of the available power of the specified source to the power that the transducer delivers to the specified load under specified operating conditions. *Notes:* (1) If the input and/or output power consist of more than one component, such as multifrequency signals or noise, then the particular components used and their weighting must be specified. (2) This loss is usually expressed in decibels. *See: transducer.* 210

transducer, passive. A transducer that has no source of power other than the input signal(s), and whose output signal-power cannot exceed that of the input. *Note:* The definition of a passive transducer is a restriction of the more general **passive network**, that is, one containing no impressed driving forces. *See: transducer.* 210

transfer (1) (telephone switching systems). A feature that allows a customer to instruct the switching equipment or operator to transfer his call to another station. 55

(2) (electronic computation). (A) To transmit, or copy, information from one device to another. (B) To jump. (C) The act of transferring. *See: jump; transmit.* 235